



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	8893/1
<b>Permit Holder:</b>	Shire of Murchison
<b>Duration of Permit:</b>	9 October 2020 – 9 October 2030

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### **PART I – CLEARING AUTHORISED**

**1. Purpose for which clearing may be done**

Clearing for the purpose of gravel extraction.

**2. Land on which clearing is to be done**

Lot 11808 on Plan 220345 (Pastoral Lease N049633), Nerramyne

**3. Area of Clearing**

The Permit Holder must not clear more than 7.03 hectares of native vegetation within the area cross hatched yellow on attached Plan 8893/1.

**4. Period in which clearing is authorised**

The Permit does not authorise the Permit Holder to clear native vegetation within the area cross-hatched yellow on attached Plan 8893/1 for the purpose authorised under this Permit after 9 October 2025.

**5. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

**6. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

### **PART II – MANAGEMENT CONDITIONS**

**7. Avoid, minimise and reduce the impacts and extent of clearing**

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

## 8. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

## 9. Fauna management – direction of clearing

The Permit Holder shall conduct clearing in a slow progressive manner from one direction to the other (e.g. east to west) to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

## 10. Retain vegetative material and topsoil, and rehabilitation

- (a) The Permit Holder must retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) The Permit Holder must, within 12 months of undertaking the clearing authorised under this Permit, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose for which they were cleared under this Permit by:
  - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
  - (ii) ripping the pit floor and contour batters within the extraction site; and
  - (iii) laying the vegetative material and topsoil retained under Condition 10(a) on the cleared area.
- (c) The Permit Holder must following the first wet season of laying the vegetative material and topsoil on the cleared area in accordance with condition 10(b) of this permit:
  - (i) engage an *environmental specialist* to determine the species composition, structure and density of the vegetation of area revegetated and rehabilitated; and
  - (ii) engage an *environmental specialist* to make a determination as to whether the composition, structure and density determined under condition 10(c)(i) of this permit will, without further revegetation, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area.
- (d) If the determination made by the *environmental specialist* under condition 10(c)(ii) is that the species composition, structure, and density determined under condition 10(c)(i) will not, without further *revegetation*, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the permit holder must *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation seeds that will result in a similar species composition, structure, and density of native vegetation to pre-clearing vegetation types in that area.
- (e) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 10(d), the Permit Holder must repeat the activities required by condition 10(c) and 10(d) within 12 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (f) Where a determination is made by an *environmental specialist* under condition 10(c)(ii) that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, that determination shall be submitted to the *CEO* within three months of the determination being made by the *environmental specialist*.
- (g) During the next *optimal time* occurring after receiving notice from the *CEO*:
  - (i) stating that the *CEO* disagrees with the determination submitted under condition 10(f);
  - and

- (ii) specifying the required further *planting of local provenance* propagating material and/or *direct seeding of local provenance* seeds that in the *CEO's* reasonable opinion are necessary to ensure that the native vegetation will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the permit holder must carry out the further *planting* and/or *direct seeding* specified in the notice.

### **PART III - RECORD KEEPING AND REPORTING**

#### **11. Records to be kept**

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) in relation to the clearing of native vegetation authorised under this permit:
  - (i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (ii) the date that the area was cleared;
  - (iii) the size of the area cleared (in hectares);
  - (iv) the purpose for which clearing was undertaken;
  - (v) actions taken in accordance with condition 6 of this Permit;
  - (vi) actions taken to avoid, minimise and reduce the impacts and the extent of clearing in accordance with condition 7 of this Permit;
  - (vii) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 8 of this Permit;
  - (viii) activities undertaken in accordance with condition 9 of this Permit;
- (b) in relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 10 of this Permit:
  - (i) a description of the *revegetation* and *rehabilitation* activities undertaken;
  - (ii) the size of the areas *revegetated* and *rehabilitated* (in hectares);
  - (iii) the date that *revegetation* and *rehabilitation* works began; and
  - (iv) actions taken in accordance with condition 10 of this Permit.

#### **12. Reporting**

The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:

- (a) of records required under condition 11 of this Permit;
- (b) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding calendar year;
- (c) if no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this Permit has been carried out, must be provided to the CEO on or before 30 June of each year; and
- (d) prior to 9 July 2030 the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

### **DEFINITIONS**

The following meanings are given to terms used in this Permit:

**CEO:** means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

**direct seeding** means a method of re-establishing vegetation through establishment of a seed bed and the introduction of seeds of the desired plant species;

**environmental specialist** means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the *CEO* as a suitable environmental specialist;

**fill** means material used to increase the ground level, or fill a hollow;

**local provenance** means native vegetation seeds and propagating material from natural sources within 100 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;

**mulch** means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

**optimal time** means the period from November to December for undertaking direct seeding, and no planting without irrigation for undertaking planting;

**planting** means the re-establishment of vegetation by creating soil conditions and planting seedlings of the desired species;

**rehabilitate/ed/ion** means actively managing an area containing native vegetation in order to improve the ecological function of that area;

**revegetate/ed/ion** means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

**weed/s** means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



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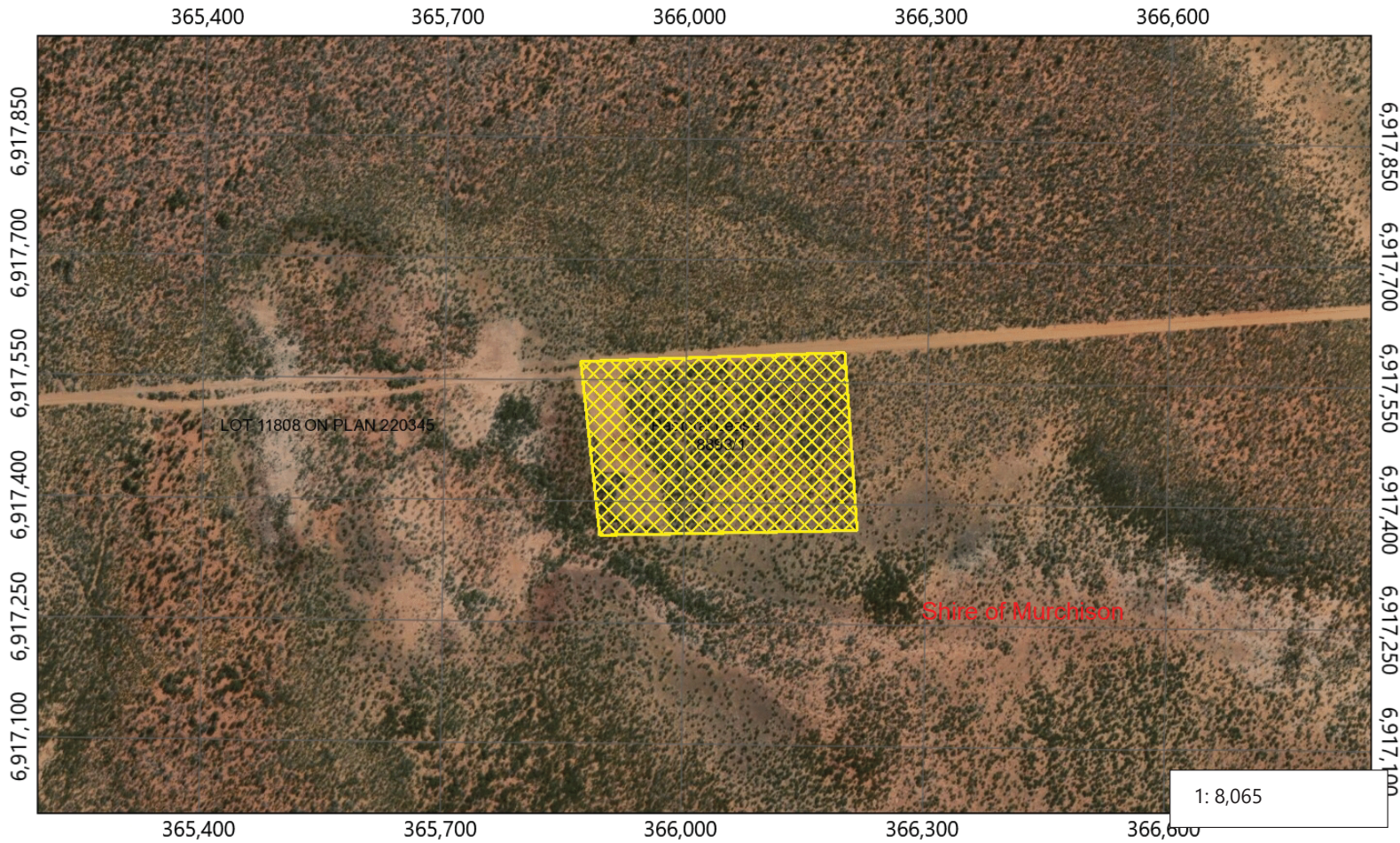
Meenu Vitarana  
A/MANAGER  
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

15 September 2020




Plan 8893/1

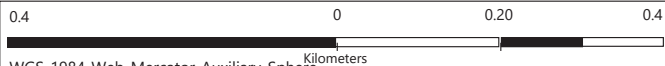


Legend

- CPS areas approved to clear
- Roads - State Roads
- Roads - Major Roads
- Roads - Minor Roads
- Cadastre

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Officer with delegated authority under Section 20 of the Environmental Protection Act 1986



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# Clearing Permit Decision Report

## 1. Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 8893/1
<b>Permit type:</b>	Purpose Permit
<b>Applicant name:</b>	Shire of Murchison (the Shire)
<b>Application received:</b>	29 April 2020
<b>Application area:</b>	7.03 hectares (ha) of native vegetation
<b>Purpose of clearing:</b>	Extractive industry
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 11808 on Plan 220345
<b>Location (LGA area/s):</b>	Shire of Murchison
<b>Localities (suburb/s):</b>	Nerramyne

### 1.2. Description of clearing activities

The application is to clear native vegetation for excavation of a gravel borrow pit along a track within a pastoral property to obtain material for road maintenance and upgrades.

The vegetation to be cleared is contained within a single area (see Figure 1, Section 1.5). The application area includes some previously cleared areas, including a portion along the western boundary comprising just over 1 hectares and several vehicle tracks.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Granted
<b>Decision date:</b>	15 September 2020
<b>Decision area:</b>	7.03 ha of native vegetation within four locations as outlined in Section 1.5

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the Environmental Protection Act 1986 (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 29 April 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix C), advice from the Shire in relation to the proposed clearing (2020b), relevant datasets (see Appendix F) relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Sections 3 and 4).

In particular, the Delegated Officer has determined that:

- The likelihood of conservation significant flora occurring within the application area is low, and given the context of the local area, should conservation significant flora be present within the application area the proposed clearing is not likely to have a significant impact upon these species;
- While the application area may provide suitable habitat for Malleefowl, it is unlikely to comprise significant habitat within the context of the local area; and
- Measures committed to by the applicant to rehabilitate and revegetate areas within the application area following the cessation of gravel extraction will reduce the likelihood of land degradation occurring and provide habitat for Malleefowl in the future.



After consideration of the available information, as well as the applicants avoidance and minimisation measures (see Section 3.1), the Delegated Officer has determined that with appropriate management conditions, the proposed clearing is not likely to lead to an unacceptable risk to the environment. The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise and reduce the impacts and extent of clearing
- take steps to minimise the introduction and spread of weeds to minimise impact to the surrounding vegetation
- slow, directional clearing to allow fauna to escape into the surrounding vegetation
- progressively revegetate all cleared areas within 12 months of the area no longer being required for the purpose of gravel extraction, to minimise wind erosion and long term impacts
- record keeping and reporting requirements.

## 1.5. Site map



Figure 1: Map of application area. The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. The precautionary principle;
2. The principle of intergenerational equity; and
3. The principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *Biodiversity Conservation Act 2016 (BC Act)*

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)

- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016)

### 3. Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

The applicant advised in regards to consideration of avoidance and mitigation measures:

- Clearing of all trees with a trunk diameter larger than six to eight inches will be avoided;
- Clearing of individuals of any size of certain tree species, including Gum, Kurrajong, Quandong, Jams, Gidgees and Corkwood, will be avoided;
- Old or exhausted gravel pits will be revegetated in accordance with Shire policy; and
- Clearing will be minimised wherever possible.

#### 3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix B) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix C.

This assessment identified that the clearing may pose a risk to the environmental values of biological values (flor and fauna) and land and water resources. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below in Section 3.2.1 and 3.2.3 respectively. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

##### 3.2.3 Environmental value: biological values (flora and fauna) – Clearing Principles (a) and (b)

Assessment: The application area is mapped as containing a suitable soil and vegetation type for three species of priority flora recorded within the local area, and in the absence of surveys the presence of these flora within the application area cannot be discounted. However, given the proposed use of the application area is a gravel pit, it is likely that soils are likely to be lateritic/gravelly in nature, and records of three species are generally associated with sandy soils (DBCA, 2007-). Furthermore, given the relatively small extent of the application area in the context of the local area, which contains over 99 per cent of Pre-European vegetation, the proposed clearing is considered unlikely to significantly impact the conservation status of these species, should they be present within the application area.

Given that several *Leipoa ocellata* (Malleefowl) have been recorded within the local area and it likely that vegetation within the application area is suitable to support this species (i.e. arid shrublands or low woodlands dominated by mallee and/or acacias (Benshemesh, 2007)), it is considered possible that vegetation within the application area may be utilised by Malleefowl. However, given the abundance of potential Malleefowl habitat within the local area, including vegetation immediately surrounding the application area, any habitat present within the application area is not considered likely to be locally significant for the survival of this species.

It is also acknowledged that the applicant has committed to revegetating the application area, and accordingly conditions have been placed on the permit requiring the applicant to re-establish similar flora species composition, structure and density to that of pre-clearing vegetation types after excavations for gravel extraction are no longer required. As such, revegetated land should, once established, provide suitable habitat for Malleefowl and have a level of biodiversity similar to that prior to clearing.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable subject to relevant conditions (see below) in relation to this environmental value.

Conditions: To address the above impacts, the following conditions will be added to the permit:

- Clearing shall be conducted in a slow, progressive manner from north to south to allow fauna to move out of the clearing area and into adjacent remnant vegetation; and
- Progressively revegetate all cleared areas within 12 months of the area no longer being required for the purpose of extraction.



### 3.2.4 Environmental values: land and water resources – Clearing Principle (g)

**Assessment:** Given that soils within the application area are likely to be gravelly, the risk of wind erosion resulting from the proposed clearing is considered to be low. Furthermore, the applicant has committed to rehabilitating and revegetating the application area after excavations for gravel extraction are no longer required. Conditions have been placed on the permit to require that this rehabilitation and revegetation is conducted and reported on accordingly. Given this, it is considered that the clearing is unlikely to result in land degradation impacts.

**Outcome:** Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable subject to relevant conditions in relation to this environmental value.

**Conditions:** To address the above impacts, the following conditions will be added to the permit:

- Progressively revegetate and rehabilitate all cleared areas within 12 months of the area no longer being required for the purpose of extraction.

### 3.3. Relevant planning instruments and other matters

The creation of gravel pits on private land by Local Government Authorities is possible under s.3.27 and Schedule 3.2 of the *Local Government Act 1995*.

No Aboriginal Sites and Heritage Places occur within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

## Appendix A – Additional information provided by applicant

On 20 August 2020, DWER asked the Shire for further clarification regarding a statement made in their application advising they will "leave all trees", and asked whether the Shire is willing to undertake any revegetation/rehabilitation activities within the application area.

On 20 August 2020, the Shire advised the following:

- Rehabilitation of old or exhausted borrow pits is Council policy;
- Rehabilitation of borrow pits currently in use is sometimes undertaken when practical to do so;
- When clearing for borrow pits, the Shire tries to avoid knocking over trees with a trunk diameter of more than 6 or 8 inches, and avoids clearing individuals of certain tree types (e.g. Gum, Kurrajong, Quandong, Jams, Gidgees, corkwood) regardless of size;
- The Shire only engages two contractors to clear vegetation for pits, as these contractors have demonstrated that they are prepared to adhere to the Council wishes as far as clearing of any vegetation is concerned;
- The Shire is willing for DWER to place conditions on clearing permit CPS 8893/1 to require the above.

DWER considers that the above information demonstrates that the Shire have adequately considered avoidance and minimisation measures for the proposed clearing, and has placed conditions on Clearing Permit CPS 8893/1 accordingly.

## Appendix B – Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

### 1. Site characteristics

Site characteristic	Details
Local context	The proposed clearing area is part of an expansive tract of native vegetation within contiguous pastoral properties, and apart from a track running along the northern border of the area, is surrounded by native vegetation. The application area includes some previously cleared areas, including a portion along the western boundary comprising just over 1 hectare and several vehicle tracks. Spatial data indicates the local area (20 kilometre radius of the proposed clearing area) retains close to 99 per cent of the original native vegetation cover.

Site characteristic	Details
Vegetation description	The application area is located within the Yalgoo Interim Biogeographic Regionalisation for Australia (IBRA) bioregion, and vegetation within the application area is mapped as the Yalgoo 40 vegetation association, described as “Shrublands; acacia scrub, various species” (Shepherd, 1981).
Vegetation condition	<p>Aerial imagery indicates vegetation within the application area, with the exception of previously cleared areas, appears to be largely undisturbed, although it is noted that the area is within a pastoral station. As such, in the absence of survey information or photographs, vegetation within the application area is considered likely to be within the range of Good, Very Good, or Excellent condition, described as:</p> <ul style="list-style-type: none"> <li>• <i>Good: More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds;</i></li> <li>• <i>Very Good :Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks;</i></li> <li>• <i>Excellent: Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement (Keighery, 1994).</i></li> </ul> <p>The full vegetation condition rating scale is provided in Appendix D, below.</p>
Soil description	Soil within the application area is mapped as Kalli System (Map unit 271Ka), described as elevated gently undulating red sandplains edged by stripped surfaces on laterite and granite, supporting acacia tall shrublands with wanderrie grass understoreys (DPIRD, 2017).
Land degradation risk	Kalli System soils are characterised as having a high risk of subsurface acidification (DPIRD, 2017) and “not normally susceptible to accelerated erosion when degraded”, although sand dune unit Kalli soils are “susceptible to wind erosion if denuded of vegetation” (Curry et. al., 1994).
Waterbodies	A minor non-perennial watercourse, a tributary of the Greenough River, is located within 50 m on the south-western corner of the application area. This watercourse feeds into a non-perennial claypan waterbody located approximately 1.3 kilometres south-east of the application area.
Conservation areas	<p>There are no known conservation areas in the proposed clearing area or within the local area (20 kilometre) of the proposed clearing area.</p> <p>An unmanaged reserve associated with the De Grey Mullewa Stock Route is located approximately 830 metres east of the application area. A property of unallocated crown land listed as a DBCA Land of Interest (former leasehold proposed for conservation) is located approximately 4.8 kilometres south-east of the application area.</p>
Climate and landform	<p>The nearest Bureau of Meteorology (BoM) weather station is located at Woolgorong (Station No 006055). Mean annual rainfall recorded at the site is 236 millimetres.</p> <p>Groundwater salinity within the application area is 1000-3000 mg/L TDS. Hydrogeology within the area is described as “rocks of low permeability, fractured and weathered rocks - local aquifers”, with gneiss and migmatite lithology. No aquifer is mapped beneath the application area (BoM, 2020).</p> <p>Topographic contour mapping indicates the application area has an elevation of approximately 300 metres AHD.</p>

## 2. Flora, fauna and ecosystem analysis

According to available databases (DBCA, 2007-, eight priority (P) flora species, two threatened fauna species, one specially protected fauna species and no threatened ecological communities or priority ecological communities have been recorded within the local area (20 kilometres).

Of the above records, with consideration for the site characteristics set out above, the following conservation significant flora and fauna species may be impacted by the clearing.

Flora Species	BC Act Listing	Distance of closest record to application area (km)	Number of records in local area	Suitable soil type?	Suitable vegetation type?	Surveys adequate to identify? (Y, N, N/A)
<i>Eremophila physocalyx</i>	P3	8.9	1	Y	Y	N
<i>Malleostemon</i> sp. Woolgorong Station ( <i>M. Officer</i> 100)	P1	12.9	2	Y	Y	N
<i>Sauropus</i> sp. Woolgorong ( <i>M. Officer</i> s.n. 10/8/94)	P3	10.0	7	Y	Y	N
Fauna Species	BC Act Listing	Distance of closest record to application area (km)	Number of records in local area	Most recent record	Suitable habitat features	Surveys adequate to identify? (Y, N, N/A)
<i>Leipoa ocellata</i> (Malleefowl)	T	6.7	1	1996	Y	N

## 3. Vegetation extent

The following table presents the pre-European extent and current remaining extent of the relevant Beard vegetation associations occurring within the proposed clearing area (Government of Western Australia, 2019).

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Yalgoo	5,087,576.66	4,923,840.47	97.36	1,576,718.27	31.18
<b>Beard vegetation association in IBRA bioregion:</b>					
Yalgoo_40	301,712.85	284,656.96	94.35	12,937.65	4.29

## Appendix C – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u> The application area may contain habitat for three species of priority flora and one species of threatened fauna, however, in the context of the largely uncleared native vegetation within the local area,</p>	Not likely to be at variance	Yes. Refer to Section 3.2.1



Assessment against the Clearing Principles	Variance level	Is further consideration required?
proposed clearing area is not likely to comprise a high level of biodiversity.		
<p><u>Principle (b):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</i></p> <p><u>Assessment:</u> The application area may provide suitable habitat for one threatened fauna species listed under the BC Act, however given the context of the application area, this habitat is unlikely to be significant.</p>	Not likely to be at variance	Yes. Refer to Section 3.2.1
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u> The proposed clearing area is unlikely to contain habitat for threatened flora species listed under the BC Act.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.”</i></p> <p><u>Assessment:</u> The proposed clearing area is unlikely to contain species indicative of a threatened ecological community listed under the BC Act.</p>	Not likely to be at variance	No
<b>Environmental values: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> The extent of the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. Vegetation in the proposed clearing area is not considered to be part of a significant ecological linkage in the local area and wider area.</p>	Not likely to be at variance.	No
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u> Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not likely to be at variance	No
<b>Environmental values: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u> No wetlands or watercourses are likely to be present within the application area.</p>	Not likely to be at variance.	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>Given the nature of the soils likely to be present within the application area and operational measures that are to be implemented by the applicant, the proposed clearing is unlikely to result in appreciable land degradation.</p>	Not likely to be at variance.	Yes. Refer to Section 3.2.2.

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<p><u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</p> <p><u>Assessment:</u> Given the non-perennial nature of the watercourse and conditions requiring the permit holder to revegetate and rehabilitate cleared land, the proposed clearing is unlikely to result in deterioration of water quality with respect to the watercourse adjacent to the application area and downstream receiving waters. As no aquifer is present beneath the application area, the proposed clearing is unlikely to have any impacts on groundwater quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment:</u> The surveyed soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no water courses are recorded within the proposed clearing area and conditions requiring the permit holder to revegetate and rehabilitate cleared land, the clearing is unlikely to contribute to waterlogging or flooding.</p>	Not likely to be at variance.	No

#### Appendix D – Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation’s ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

#### Measuring Vegetation Condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very Good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very Poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely Degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or ‘parkland cleared’ with their flora comprising weed or crop species with isolated native trees or shrubs.

## Appendix F – References

### 1. GIS datasets

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- Aboriginal Heritage Places (DPLH-001)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Soil and Landscape Mapping – Best Available (DPIRD-027)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System)– Points and Polygons
- Threatened Flora (TPFL) (DBCA-036)
- Threatened Flora (WAHerb)
- Threatened and Priority Fauna (DBCA-037)
- Threatened Ecological Communities and Priority Ecological Communities (DBCA-038)
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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